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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,673	11/29/2001	Mou-Chung Ngai	PGI6044P0231US	4596

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WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
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CHICAGO, IL 60661

EXAMINER

PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,673

Applicant(s)

NGAI, MOU-CHUNG

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 28, 2004 has been entered.

Response to Amendment

2. Applicant's amendment filed on July 28, 2004 has been entered. Claim 21 has been cancelled. Claims 22-28 have been amended. Since claims 22-27 have been amended to now recite product claims that depend from claim 28 rather than process claims that depend from claim 21, the restriction requirement set forth 2 of the last Office Action is now withdrawn. Claims 22-28 are currently pending.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 22-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 28 recites "said nonwoven fabric wipe exhibits a frictional coefficient differential between the opposite expansive surfaces thereof of at least 0.05." Support for this limitation is not found in the specification.

5. Claims 22-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 28 recites "said nonwoven fabric wipe exhibits a frictional coefficient differential between the opposite expansive surfaces thereof of at least 0.05." However, the specification does not enable the claimed limitation in the specification. No teaching is provided as to how much binder and what type of binder should be used with any given sample fabric to provide the claimed coefficient differential.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites "said nonwoven fabric wipe exhibits a frictional coefficient differential between the opposite expansive surfaces thereof of at least 0.05." How is the "frictional coefficient differential" measured? How is this value provided?

Claim Rejections - 35 USC § 102/103

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 22, 24, 25, and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Anderson et al. (U.S. Patent No. 6,103,061).

Anderson et al. disclose a hydraulically entangled nonwoven fabric comprising two layers and a bonding material applied to one side of the web (column 2, lines 28-36). Although Anderson et al. do not explicitly teach the limitation of a frictional coefficient differential between the opposite expansive surfaces to be at least 0.05, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. nonwoven hydroentangled fabric) and in the similar production steps (i.e. coated with a binder on one side in a pattern) used to produce the absorbent wipe. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed frictional coefficient differential would obviously have been provided by the process disclosed by Anderson et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. With regard to claims 24 and 25, the binding material may be applied by spraying (column 13, lines 5-7) in a pre-selected pattern (column 14, lines 38-59).

Claim Rejections - 35 USC § 103

11. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Buyofsky et al. (U.S. Patent No. 4,810,568).

Anderson et al. do not disclose an intermediate layer between the first and second layers. Buyofsky et al. disclose a nonwoven composite used as a wipe with excellent abrasion resistance, dimensional stability, and absorbency (column 1, lines

47-60). Two entangled layers are coated with an abrasive binder, and then laminated together with a thermoplastic reinforcement layer in-between, which offers dimensional stability to the composite (column 2, lines 36-64). It would have been obvious to one having ordinary skill in the art to use a reinforcement layer in the nonwoven composite of Anderson et al. in order to increase the dimensional stability of the composite, as taught by Buyofsky et al. Anderson et al. do not disclose the binder material to abate from one layer to the next.

12. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Wagner et al. (U.S. Patent No. 5,951,991)

Anderson et al. teach using pigment in the binder composition (column 13, line 23), but do not disclose the binder should have a different color than the other surface. Wagner et al. teach that the use of different colors in a wipe can help the user distinguish the surfaces (column 8, lines 41-42). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use different color binder in the material of Anderson et al. in order to allow a user to easily distinguish the surfaces of the wipe, as taught by Wagner et al.

13. Claims 22-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Welch et al. (U.S. Patent No. 6,022,818) in view of Wong et al. (U.S. Patent No. 5,213,588).

Welch et al. disclose a hydroentangled nonwoven fabric formed from two different fiber sources (column 2, lines 34-37). One surface is made of matrix fibers, such as polyester (column 2, line 51), and the other surface is made of absorbent fibers,

such as cellulosic fibers and rayon (column 4, lines 38-40). Welch et al. do not teach applying an abrasive coating to the fabric for cleansing purposes. Wong et al. disclose adding abrasive particles in a coating to nonwoven wiping materials to enhance soil and stain removal performance (column 1, lines 64-68). Wong et al. further suggest that the abrasive coating of their invention can be applied to any conventionally fashioned nonwoven sheet with suitable characteristics (column 3, lines 65-68). It would have been obvious to one having ordinary skill in the art to apply the abrasive coating provided by Wong et al. to the nonwoven fabric taught by Welch et al. in order to create a cleaning wipe with enhanced soil and stain removing properties. Although Wong et al. do not explicitly teach the limitation of a frictional coefficient differential between the opposite expansive surfaces to be at least 0.05, it is reasonable to presume that said limitations are inherent to the invention upon application of the abrasive binder. Support for said presumption is found in the use of similar materials (i.e. nonwoven hydroentangled fabric provided by Welch et al.) and in the similar production steps (i.e. coated with an abrasive binder on one side in a pattern, as taught by Wong et al.) used to produce the absorbent wipe. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed frictional coefficient differential would obviously have been provided by the process disclosed by Wong et al., since Wong et al. teach the binder is applied in order to create abrasiveness for better wiping. With regard to claim 23, Welch et al. disclose a second layer of synthetic matrix fibers can be added to the first layer of matrix fibers, thus making the first layer an intermediate layer. With regard to claims 24 and 25,

Wong et al. disclose applying the abrasive coating in a pattern onto the nonwoven fabric (column 2, lines 52-55). A coating applied in a pattern is scattered across the fabric in a non-random fashion. With regard to claims 26 and 27, Wong et al. disclose adding a green dye to the binder composition (see Example IV in column 19), so the color of surface with binder applied thereto would be different from that without binder because of the binder.

Response to Arguments

14. Applicant's arguments filed July 28, 2004 have been fully considered but they are not persuasive.

15. Applicant argues that there is no recognition in the prior art of a frictional coefficient differential between opposite expansive surfaces. However, the prior art does not need to disclose claimed properties that it does not measure. A reasonable basis has been shown above that the claimed property is inherent to the material, because the prior art uses similar materials and similar processes. Neither the claims nor the specification show material (i.e. type and amount of binder) that distinguishes the present Application from the prior art. Since a reasonable basis for the claimed property to be inherent, the burden is now upon the Applicant to prove otherwise.

16. Applicant argues that Anderson et al. do not teach enhancing abrasiveness. The Anderson et al. reference meets Applicant's claims because it contains a binder. In the art of nonwoven fabrics, a binder is used to enhance fabric integrity (by bonding the fibers together), which results in a more abrasive texture. Thus, the addition of binder to

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the fabric of Anderson et al. would enhance surface abrasion to some degree and a reasonable basis has been set forth to show that the claimed degree of abrasion enhancement would be inherent. Applicant has not defined what the binder is in the claims. Binder enhances surface abrasion to some degree, so Anderson et al. anticipates, or alternatively renders obvious the claim, unless Applicant can prove otherwise.

17. Applicant then argues that Anderson contemplates the inclusion of a friction reducing agent. However, support for Applicant's argument is not found in the Anderson et al. reference. Additionally, it is not proven that inclusion of a friction reducing element would render the abrasiveness enhancement outside the scope of Applicant's claim limitation of 0.05.

18. Applicant argues that Anderson et al. only provide a possibility of a frictional coefficient differential. However, Anderson et al. specifically teach the binder need only be applied to one side of the fabric, as set forth above.

19. Applicant argues that Anderson et al. does not teach the provision of an intermediate layer for abating migration of binder material from expansive surface to another. However, the presence of a middle layer would accomplish Applicant's desired function because a fibrous middle layer would abate migration of binder, whether or not the prior art specifically states that it does. Also, motivation to combine Buyofsky et al. with Anderson et al. is found because Buyofsky et al. teach that inclusion of a middle layer provides structural integrity to an entangled fibrous wipe, as set forth above.

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20. Applicant argues that Wagner et al. does not teach or suggest the use of a different colored binder. However, Anderson et al. teach the use of adding pigment to the binder (column 13, line 23), so a person of ordinary skill in the art would be enabled to do that. Wagner et al. is only used to show that it is known to provide differing color to opposite sides of wipes. Thus, it would be obvious to a person of ordinary skill in the art to use pigment of a different color in Anderson et al., in order to derive the advantages taught by Wagner et al.

21. Applicant argues that the combination of Welch et al. and Wong et al. do not teach a nonwoven fabric with a frictional coefficient differential by application of a binder composition to one, but not the other, of the expansive surfaces. However, the rejection above addresses all the claim limitations, including the new limitation of coefficient differential. Applicant has not pointed out any specific deficiency in the rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571) 272-1479. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

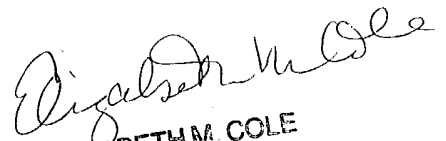
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JRP

JRP

October 17, 2004


ELIZABETH M. COLE
PRIMARY EXAMINER